# **Module 17: EMS Audits**

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### **GUIDANCE**

Once your organization has established its EMS, verifying the implementation of the EMS is critical. To identify and resolve EMS deficiencies you must **actively seek them out**.

In any organization, periodic audits can be valuable. Managers and employees are often so close to the work they perform that they may not see problems or bad habits that have developed. Periodic EMS audits will help determine whether **all** of the requirements of the EMS are being carried out in the specified manner.

For your EMS audit program to be effective, you should:

- develop audit **procedures** and protocols;
- determine an appropriate audit **frequency**;
- select and **train** your auditors; and
- maintain audit records.

Results of your EMS audits should be linked to the **corrective and preventive action** process, as described in Module 15.

While they can be time-consuming, EMS audits are critical to EMS effectiveness. Systematic identification and reporting of EMS deficiencies to management provides a great opportunity to:

- maintain management focus on the environment,
- **improve** the EMS and its performance, and
- ensure the system's **cost-effectiveness**.

# Audit procedures should describe:

- audit planning
- audit scope (areas and activities covered)
- **☑** audit frequency
- **☑** audit methods
- key responsibilities for the audits
- reporting mechanisms for the audits
- recordkeeping for audit results

#### **Getting Started:**

#### How frequently do we need to audit?

To determine an appropriate frequency of your EMS audits, consider the following factors:

- < the nature of your **operations** and **activities**,
- < your significant environmental **aspects / impacts** (which you identified earlier),
- < the results of your **monitoring** processes, and
- < the results of **previous audits**.

As a rule of thumb, all parts of the EMS should be audited at least annually. You can audit the entire EMS at one time or break it down into discrete elements for more frequent audits.

#### What do we need to audit?

As part of your audits, it is critical that you regularly review your company's environmental aspects and objectives. Over time, you will probably add to the list of environmental aspects and you may need to re-rank the aspects as your activities change and as new information becomes available. Here are some things to check:

- New process review have any changes introduced new environmental aspects?
- Worksheets from the most recent environmental aspect identification and significance determination — is there new information on chemical effects? If so, update your worksheets.
- Communication received from external stakeholders do any comments suggest a need for you to reevaluate your aspects?
- Environmental objectives and targets what new ones will your company set for this time period? Which are now accomplished and can be closed out or maintained?
- Pollution prevention program has information become available from this effort that would add aspects or objectives?
- Audit program have your audits turned up information on where your EMS and environmental programs could be improved? Would this information be useful in your aspect identification process or in redesigning your objectives?

### L Tip

Regularly revisiting your environmental aspects and objectives is an essential step in developing an EMS that achieves the goal of continuous improvement.

The regular review of aspects can be used to change the priorities you set last time, or it can be used to examine a part of your company's activities that you set aside last time. The regular review can be part of a planned "phasing in" process, wherein different parts of your company's operations are reviewed until all your company's activities are included in your EMS. The regular review of aspects is the foundation for your company's continuing improvement.

#### Who will perform the audits?

You should select and train EMS auditors. Auditor training should be both **initial and ongoing**. Commercial EMS auditor training is available, but it might be more cost-effective to link up with businesses or other organizations in your area (perhaps through a trade association) to sponsor an auditor training course. Some local community colleges also offer EMS auditor training courses.

Auditors should be trained in **auditing techniques** and **management system** concepts. Familiarity with environmental regulations, facility operations, and environmental science can be a big plus, and in some cases may be essential to adequately assess the EMS.

Some auditor training can be obtained **on-the-job**. Your organization's first few EMS audits can be considered part of auditor training, but make sure that an **experienced auditor** leads or takes part in those "training" audits.

Auditors should be **independent of the activities being audited**. This can be a challenge for small organizations.

If your company is registered under **EMS 9001**, consider using your internal quality auditors as EMS auditors. While some additional training might be needed for EMS auditing, many of the required skills are the same.

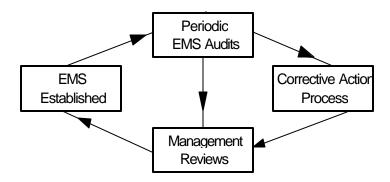
#### How should management use audit results?

Management can use EMS audit results to **identify trends or patterns** in EMS deficiencies. The organization also should ensure that identified system gaps or deficiencies are corrected in a timely fashion and that corrective actions are documented. Management review of the EMS can use these results, as discussed in **Module 18, Management Review**.

#### Hints

- Your EMS audits should focus on **objective evidence of conformance**. During an audit, auditors should resist the temptation to evaluate, for example, **why** a procedure was not followed that step comes later.
- During an audit, auditors should **review identified deficiencies** with people who work in the relevant area(s). This will help the auditors verify that their audit findings are correct. This also can reinforce employee awareness of EMS requirements.
- If possible, train at least **two** people as internal auditors. This will allow your auditors to work as a **team**. It also allows audits to take place when one auditor has a schedule conflict, which is often unavoidable in a smaller organization!
- **Before you start** an audit, be sure to **communicate** the audit scope, criteria, schedule, and other pertinent information to the people in the affected area(s). This helps to avoid confusion and facilitate the audit process.
- Consider **integrating** your EMS and regulatory compliance audit processes, **but** keep in mind that these audit processes have different purposes. While you might want to **communicate the results** of EMS audits widely within your organization, the results of compliance audits might need to be communicated in a more limited fashion.
- Final thought: An EMS audit **is** a check on how well your system meets your own established EMS requirements. An EMS audit is **not** an audit of how well employees do their jobs. Auditors should avoid the "gotcha" mentality. Audits should be judged on the **quality** of findings, rather than on the number of findings.

Figure 17-1: Linkages Among EMS Audits, Corrective Action and Management Reviews



EMS Template Revision 2.0 (March 2002)

**Tool 17-1** is a worksheet that might guide your facility in establishing and implementing an EMS audit program. **Tool 17-2** provides a sample procedure for conducting internal EMS audits. **Forms 17-2a, 17-2b, 17-2c, 17-2d, and 17-2e** are sample forms that can be used to document planning, implementation, reporting, and follow-up associated with your internal EMS audits. **Example 17-1 and 17-2** are sample questionnaires/checklists that you can customize for use in guiding the work of your internal EMS audit team.



## **Tool 17-1: EMS Auditing Worksheet**

Have we developed an <b>EMS audit program</b> ? If not, how will this be accomplished? <b>Who need to be involved</b> in the audit process?	
Is there <b>another audit program</b> with which our EMS audits could be <b>linked</b> (for example, our quality or health & safety management system audits)?	
Have we determined an appropriate <b>audit frequency</b> ? What is the <b>basis</b> for the existing frequency? Should the frequency of audits be modified?	
Have we <b>selected</b> EMS auditors? What are the <b>qualifications</b> of our auditors?	
What <b>training</b> has been conducted or is planned for our EMS auditors?	
Have we <b>conducted EMS audits</b> as described in the audit program? Where are the results of such audits described?	
How are the results of EMS audits <b>communicated</b> to top management?	
How are the <b>records</b> of these audits maintained?	
Our next step on EMS auditing is to	

### **Tool 17-2: Sample Procedure for EMS Audits**

#### **Purpose**

To define the process for conducting periodic audits of the environmental management system (EMS). This procedure defines the process [Your Facility's Name] will use to schedule, conduct, and report EMS audits.

#### Scope

This procedure applies to all internal EMS audits conducted at this plant.

The scope of EMS audits may cover all activities and processes comprising the EMS or selected elements the reof. This will be specified at the initiation of each audit.

#### General

Internal EMS audits help to ensure the proper implementation and maintenance of the EMS by verifying that activities conform with documented procedures and that corrective actions are undertaken and are effective.

All audits are conducted by trained auditors. Auditor training is defined by Procedure #. Records of auditor training are maintained in accordance with Procedure #.

When a candidate for EMS auditor is assigned to an audit team, the Lead Auditor will prepare an evaluation of the candidate auditor's performance following the audit.

The EMS Management Representative (EMR) is responsible for maintaining EMS audit records, including a list of trained auditors, auditor training records, audit schedules and protocols, and audit reports. Training records also will be maintained by the Human Resource Manager in accordance with the EMS Training procedure (see Module 8 of this EMS Manual).

EMS audits are scheduled to ensure that all EMS elements and plant functions are audited at least once each year. Form 17-2a shall be used to document the facility's audit plan.

The EMR is responsible for notifying EMS auditors of any upcoming audits a reasonable time prior to the scheduled audit date. Plant areas and functions subject to the EMS audit will also be notified a reasonable time prior to the audit. Form 17-2b shall be used to notify the facility's EMS audit team.

The Lead Auditor is responsible for ensuring that the audit, audit report and any feedback to the plant areas or functions covered by the audit is completed per the audit schedule. Forms 17-2c and 17-2d shall be submitted to the EMR in conjunction with the audit report.

The EMR, in conjunction with the Lead Auditor, is responsible for ensuring that EMS Audit Findings Forms, Form 17-2e, are prepared for audit findings, as appropriate.

#### **Procedure**

- A. <u>Audit Team Selection</u> One or more auditors comprise an audit team. When the team consists of more than one auditor, a Lead Auditor will be designated. The Lead Auditor is responsible for audit team orientation, coordinating the audit process, and coordinating the preparation of the audit report.
- B. <u>Audit Team Orientation</u> The Lead Auditor will assure that the team is adequately prepared to initiate the audit. Pertinent policies, procedures, standards, regulatory requirements and prior audit reports are made available for review by the audit team. Each auditor will have appropriate audit training, as defined by Procedure #.
- C. <u>Written Audit Plan</u> The Lead Auditor is responsible for ensuring the preparation of a written plan for the audit. The Internal EMS Audit Checklist may be used as a guide for this plan.
- D. <u>Prior Notification</u> The plant areas and / or functions to be audited are to be notified a reasonable time prior to the audit.

#### E. Conducting the Audit

- 1. A pre-audit conference is held with appropriate personnel to review the scope, plan and schedule for the audit.
- 2. Auditors are at liberty to modify the audit scope and plan if conditions warrant.
- 3. Objective evidence is examined to verify conformance to EMS requirements, including operating procedures. All audit findings must be documented.
- 4. Specific attention is given to corrective actions for audit findings from previous audits.
- 5. A post-audit conference is held to present audit findings, clarify any misunderstandings, and summarize the audit results.

#### F. Reporting Audit Results

- 1. The Team Leader prepares the audit report, which summarizes the audit scope, identifies the audit team, describes sources of evidence used, and summarizes the audit results.
- 2. Findings requiring corrective action are entered into the corrective action database.

#### **Procedure (cont'd.)**

#### G. Audit Report Distribution

- 1. The EMR is responsible for communicating the audit results to responsible area and / or functional management. Copies of the audit report are made available by the EMR.
- 2. The EMR is responsible for ensuring availability of audit reports for purposes of the annual Management Review (see Management Review Procedure in Module 18 of this EMS Manual.).

#### H. Audit Follow-up

- 1. Management in the affected areas and / or functions is responsible for any follow-up actions needed as a result of the audit.
- 2. The EMR is responsible for tracking the completion and effectiveness of corrective actions.

#### I. Record keeping

Audit reports are retained for at least two years from the date of audit completion. The EMR is responsible for maintaining such records. Forms 17-2a through 17-2e will be retained by the EMR. Auditor training records will be retained by both the EMR and the Human Resources Manager.

## Form 17-2a: Sample Audit Plan Form

Area or Function to	Lead	Audit Team	Target	
be Audited	Auditor	Members	Date	Special Instructions
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•
•	•	•	•	•

## Form 17-2b: Sample Form for Communications to Audit Team

ENVIRONMENTAL MANAGEMENT SYSTEM AUDIT	
Lead Auditor:	
Audit Team Members:	
Audit Area:	Target Due Date:
Listed above is the area to be audited. The due date g including the report and follow-up meeting with the rareas of environmental management systems criteria t please call me. Special instructions, if any, are listed help make an effective environmental management sy	esponsible area management. Listed below are the hat you are to assess. If you have any questions, below. Thank you for your help. Effective audits
Policy	Legal and Other Requirements
Environmental Aspect identification	Objectives and Targets
Environmental Management Program	Structure and Responsibility
Training, Awareness, Competence	Communication
EMS Documentation	Document Control
Operational Controls	Emergency Preparedness
Monitoring and Measurement	Nonconformance / Corrective Action
Records Management Review	Management System Audits
Special Instructions:	
EMR (signature)	

## Form 17-2c: Sample Form for Internal Assessment Checklist

Internal Assessment Team:	
Date of Internal Assessment:	
Signed:	
EMS Procedures: Check each item assessed (includes auditing of records, where applicable  Environmental policy (adherence to policy commitments)  Environmental objectives (progress; implementation of action planted EMS responsibilities  Identification of Environmental Aspects  Identification of Legal Requirements  Identification of Significant Environmental Aspects  Development of Objectives, Targets, and Action Plans  Conducting an Alternatives Evaluation  Development of Operational Controls  Environmental Training (Awareness and Task-Specific)  Emergency Preparedness  Review of New Products and Processes  Documentation  Conducting a Compliance Assessment  Conducting an Internal Assessment  Taking Corrective Action  Management Review	
EMS Performance	
Achieved objective #1 Achieved objective #2 Achieved objective #3	
Contact Person:	Date Completed

## Form 17-2d: Sample EMS Audit Summary Form

## **EMS AUDIT SUMMARY SHEET**

Organization Audited:	
Lead Auditor:	Date:

	ELEMENT NUMBER AND DESCRIPTION	AUDIT RESULTS	
		No. of Majors / No. of Minors A, N, or	
4.2	Environmental Policy		
4.3	Planning		
4.3.1	Environmental Aspects		
4.3.2	Legal and Other Requirements		
4.3.3	Objectives and Targets		
4.3.4	Environmental Management Program(s)		
4.4	Implementation and Operation		
4.4.1	Structure and Responsibility		
4.4.2	Training, Awareness, and Competence		i
4.4.3	Communication		
4.4.4	EMS Documentation		
4.4.5	Document Control		
4.4.6	Operational Control		
4.4.7	Emergency Preparedness and Response		
4.5	Checking and Corrective Action		
4.5.1	Monitoring and Measurement		
4.5.2	Corrective and Preventive Action		
4.5.3	Records		
4.5.4	EMS Audit		
4.6	Management Review		
TOTAL	.1		
Legend: A = Acceptable: Interviews and other objective evidence indicate that the EMS meets all the requirements of that section of the standard.  N = Not Acceptable: The auditor has the judgment that, based on the nun type of nonconformances, the requirements of that section of the EMS are not be X = Not Audited		number and equirements	

## Form 17-2e: Sample Form for EMS Audit Findings

## **EMS AUDIT FINDINGS FORM**

Type of Finding (circle one):			
Nonconformance: Major Minor	Positi	ve Practice	Recommendation
Description (include where in the organize	zation the	e finding was	identified):
EMS 14001 (or other EMS criteria) Reference:	Date	<b>:</b>	Finding Number:
Auditor:		itee's Rep.:	
Corrective Action Plan (including time from	ames):		
Preventive Action Taken:			
Individual Responsible for Completion o Corrective Action:	f the	Date Correc	tive Action Completed:
Corrective Action Verified By:			
			Date:

### **Example 17-1: Sample Questionnaire for EMS Audits**

### **Principle 1: Management Commitment**

1-1	Has your parent company issued a formal, written statement of environmental policy? When? How was your facility or operation made aware of this policy?
1-2	Has senior management issued a facility-specific, formal, written statement of environmental policy? When? How were facility personnel made aware of this policy? Do new personnel receive a copy of the policy? How?
1-3	What procedures are in place for regular review of and updates to the policy?
1-4	Has your facility established short- and long-term environmental goals? Please describe the key objectives and targets.
1-5	How and by whom are these goals developed? Did representatives of a variety of functions and levels within the facility work together to develop environmental objectives and targets?
1-6	What is the basis for your environmental goals? Are they based on compliance with legal requirements? Parent company directives? Environmental impacts of the facility's mission? Pollution prevention? Public perception? Employee initiatives?

### **Principle 1: Management Commitment (Continued)**

1-7	What are your most recent environmental initiatives?
1-8	What is the approval process for new environmental initiatives at your facility?
1-9	How are funds allocated for new environmental initiatives? For the environmental program? Who is ultimately responsible for these funding decisions?
1-10	Is staffing for the environmental program appropriate to program requirements and facility environmental goals? What mechanisms exist to adjust staffing level or staff capabilities?
1-11	Are managers familiar with facility and operation-specific environmental policies, regulations, and pollution prevention opportunities? Do managers participate in process reviews, assessments, environmental committees, or other activities to improve environmental performance?
1-12	How is this facility perceived by local environmental groups and the surrounding community? Are there any specific issues, <i>i.e.</i> , noise, water quality, that are of particular concern?

### **Principle 2: Compliance Assurance And Pollution Prevention**

2-1	How and how often does the facility's environmental staff communicate with federal, state, and local regulatory agencies? Historically, how would you characterize the facility's relationship with these agencies?
2-2	Has the facility taken advantage of any EPA Technical Assistance programs? Other environmental technical assistance programs?
2-3	How does facility staff track and interpret new federal, state or local regulations, policies and programs, or changes to existing regulations, policies, and programs?
2-4	How are programs and procedures updated to reflect these changes?
2-5	How does facility staff maintain environmental documentation and records, <i>e.g.</i> , manifests, TRI data? Who is responsible for reporting to federal or state agencies? Parent company?
2-6	Does the facility have an Emergency Response Plan? Spill Plan? What are the established procedures for an environmental emergency?

### **Principle 2: Compliance Assurance And Pollution Prevention (Continued)**

2-7	Has the facility performed a pollution prevention assessment?
2-8	Does the facility have a pollution prevention plan that addresses all environmental impacts and compliance programs?
2-9	Does the facility have a formal plan to reduce or eliminate the purchase and use of hazardous materials and ozone depleting chemicals? Does the facility have a hazardous materials pharmacy or similar program?
2-10	Does the facility have an affirmative procurement program?

### **Principle 3: Enabling Systems**

3-1	Does the facility have a formal, facility-wide environmental training program?	
3-2	How are training requirements determined?	
3-3	How are training records maintained?	
3-4	What is the annual budget for environmental training?	
3-5	Is funding available for staff development training opportunities?	
3-6	What guidance is provided to staff concerning compliance with new or updated environmental regulations or policies?	

### **Principle 3: Enabling Systems (Continued)**

3-7	How do managers communicate environmental performance issues or goals to staff?	
3-8	What other mechanisms are used to increase staff environmental awareness? Newsletters? Seminars?	
3-9	Is there a formal outreach effort to communicate the facility's environmental activities and programs to the community?	
3-10	How does the facility evaluate the effectiveness of outreach efforts?	

### **Principle 4: Performance And Accountability**

4-1	What are the routine reporting relationships between the environmental management program and upper level management?
4-2	How does the environmental staff communicate with upper management about environmental performance and the status of specific environmental initiatives?
4-3	How does the environmental program communicate with managers and staff about environmental performance and the status of environmental initiatives?
4-4	How do employees provide input to environmental decisions?
4-5	Are environmental duties included in staff job descriptions and performance standards?
4-6	How is excellence in environmental performance recognized and rewarded?
4-7	How do managers review and respond to poor environmental performance?

### **Principle 5: Measurement And Improvement**

5-1	What mechanisms are used to track and measure facility environmental performance? How often is such measurement performed?
5-2	Does the facility have a self audit or self monitoring program in place?
5-3	Does facility environmental staff conduct routine facility inspections? Tests of pollution control and monitoring equipment?
5-4	What are the current procedures for reporting an environmental problem? How does facility environmental staff track corrective action?
5-5	Does the parent company review facility environmental performance? How often are such reviews conducted?
5-6	Are written protocols or guidance documents used to conduct environmental performance reviews? Are summary reports available?

### **Principle 5: Measurement And Improvement (Continued)**

5-7	Does this facility participate in any cooperative environmental programs with state, local or private organizations?
5-8	Does this facility participate in any Federal voluntary initiatives such as ENERGY STAR or Performance Track?
5-9	What new environmental initiatives are planned for the facility?

Objectives and targets

Notes:

### **Example 17-2: Sample Checklist for Top Management EMS Audits**

Function: TOP MANAGEMENT

1. Environmental Policy		
Top Management Objective Evidence		
a. Describe your role in the development of the environmental policy.		
b. How do you know that your policy is appropriate for your activities, products, and services?		
c. What is management's role in the review and revision of the policy?		
d. How does management ensure continued adherence to the policy throughout the company?		
e. How does the policy help guide organizational decisions?		
f. How are employees made aware of the environmental policy?		
g. How is the policy made available to the public?		
[Auditor Note: Is there evidence that the policy was issued by top management? (e.g., Is the policy signed? By whom? At what level in the organization are they?)]		
Notes:		

#### Top Management Objective Evidence What are the environmental objectives and targets for your organization? What is your role in approving them? What are the relevant functions and levels within your organization that support the attainment of each of the objectives and targets? How are the environmental objectives linked to other organizational goals (and vice versa)? Are the objectives/targets consistent with the goals of the environmental policy for prevention of pollution and continual improvement? How were the objectives and targets developed by or communicated to management? How does management keep up with progress in meeting their objectives and targets throughout the year? How often are you informed of the status of the objectives and On what basis are the objectives and targets reviewed and modified?

## **Example 17-2: Sample Checklist for Top Management EMS Audits (Continued)**

Function: TOP MANAGEMENT

Structure and responsibility	
Top Management	Objective Evidence
At what level within the organization is the designated EMS representative placed?	
<u>Auditor Note</u> : Is the EMS representative at a level within the organization to effectively implement an EMS for his/her organization?]	
b. What authority does the EMS representative have to carry out his/her responsibilities?	
c. How does the organization assess its resource needs for environmental management? How are these factored into operating and strategic plans (and vice-versa)?	
d. What resources (financial, technical personnel) has management provided to develop or maintain the EMS?	
e. How are you informed on the performance of the EMS? Do you receive routine reports?	
f. Are responsibilities for the environmental management of the organization documented? If so, where?	
Is an integrated structure in place in which accountability and responsibility are defined, understood, and carried out?	
g. How are these responsibilities communicated to all employees (including managers)?	
Notes:	

4.	4. Communication	
Top	o Management	Objective Evidence
a.	How are you informed of the environmental issues within your organization? How often does this take place? Does this include compliance issues?	
b.	How are you kept up to date with progress in meeting your organization's environmental objectives and targets?  How is this information passed on to your managers?	
c.	How do you communicate with the organization on environmental issues?  How is this done? How frequently?	
d.	How does the organization handle inquiries from interested parties (e.g., the public, regulators, other organizations) on environmental matters?	
	Who has responsibility for responding to such inquiries?	

## **Example 17-2: Sample Checklist for Top Management EMS Audits (Continued)**

Function: TOP MANAGEMENT

4.6 Management review		
Top Management	Objective Evidence	
a. Describe the organization's management review process.		
b. How often are management reviews performed? How was this frequency determined?		
c. Who is involved in the management review process? What are their roles in this process?		
d. What changes have been made to the EMS as a result of the last review?		
Notes:		